



CANADA

# CANADIAN WEEKLY BULLETIN

INFORMATION DIVISION • DEPARTMENT OF EXTERNAL AFFAIRS • OTTAWA, CANADA

Vol. 13 No. 12

March 19, 1958

## CONTENTS

Capital Expenditure Forecast.....	1
St. Lawrence Power Project.....	2
Maple Products, 1957.....	2
Aid West Indies.....	3
\$22,000,000 Housing and School Programme.....	3
Record Labour Income.....	4

Union Membership Grows.....	4
Atomic Energy Agreement.....	4
Skilled Gardeners School.....	5
Jet-Age "Aeroquay" System.....	5
New Shellfish Beds.....	6
Civil Aviation Medicine.....	6

## CAPITAL EXPENDITURE FORECAST

Plans for a total capital expenditure programme in Canada in 1958 of \$8.5 billion are revealed by a recent survey of Canadian business, institutions, governments and house-builders. The results of this survey appear in a report entitled "Private and Public Investment in Canada - Outlook 1958", released last week.

The 1958 plans call for a continuation of capital spending at close to the record rate of 1957 when \$8.7 billions were spent for capital purposes and well ahead of any previous year. The forecast for 1958 is the same figure as the forecast for 1957 released a year ago, which later proved to be on the low side.

Within the total, construction outlays in 1958 are expected to reach \$5,991 millions, a little higher than the \$5,921 millions spent last year. The strength expected in construction is largely attributable to an anticipated 15 per cent increase in the value of house-building activity. This more than offsets a decline of 3 per cent in plans for other types of construction spending. Outlays for the acquisition of machinery and equipment are expected to total \$2,530 millions, 10 per cent less than the \$2,800 millions spent in 1957.

The 1958 investment programme features a strong resurgence in outlays for housing and

social capital, which largely offsets a lower level of business capital spending. Expansion is expected to continue at about the 1957 rate in secondary manufacturing, utilities, commercial building and agriculture. A lower rate of expansion is planned in resource-based industries. Capital outlays for mining facilities and spending for plant and equipment in such manufacturing industries as paper products, iron and steel and non-ferrous metal and non-metallic mineral processing are expected to be lower in 1958.

Substantial increases are expected in the construction of hospital and university facilities and in construction expenditures by all levels of government.

It would appear that the demands placed on Canadian manpower and materials by the investment programme outlined will be of about the same magnitude as in 1957. While the overall volume of capital spending may be a little less than that of last year, the anticipated decline will be wholly in machinery purchases, about 50 per cent of which are normally imported. The requirements of the expanded construction programme will be provided largely from Canadian sources. Indications are that the availability of labour, materials and funds will be adequate to meet the demands likely to arise from an investment programme of this size.

## ST. LAWRENCE POWER PROJECT

Amid the orderly bustle of construction at Ontario Hydro's Robert H. Saunders-St. Lawrence Generating Station, work is already well under way on a significant new phase in the building of the mighty giant.

An Ontario Hydro engineering team is now working closely with the representatives of the Canadian General Electric Company and the Canadian Westinghouse Co. Ltd. on the installation of the first four of 16 generators for the powerhouse, scheduled for initial operation in July of this year.

Fitting the 650-ton generators into the massive Canadian powerhouse climaxes more than three years of work on the St. Lawrence Power Project. For it was in August of 1954 that officials of Canada and the United States, and of Ontario Hydro and the Power Authority of the State of New York, gathered to launch the project.

Since 1954, Ontario Hydro and the Power Authority, working as partners, have directed a peak work force of some 12,000 in bringing the project toward completion. The generator installation work represents the ultimate construction phase on the powerhouse, and will continue until 1960 when the last of the units will go into service.

The immense, 60,000-kva units are being manufactured by Canadian Westinghouse and the Canadian General Electric Company, each of which is supplying eight of the generators. Through rigorous planning, the components for each unit are manufactured, and shipped progressively so that parts for each unit arrive at Cornwall on the precise date that erection of each generator is scheduled to start.

The shipping weight of a complete generator is approximately 1,310,000 pounds, and transportation of the parts from factory to the powerhouse is made by railway or truck. Many of the problems created in handling these behemoths can be readily appreciated for the weight of some of the components is immense. A complete rotor weighs about 250 tons, a stator 145 tons and a shaft 58 tons. Once at the powerhouse, the generator parts are installed in the completed generator pits with the assistance of a 300-ton capacity main gantry crane in the powerhouse.

An interesting feature of the installation is the design of the main thrust bearing. This bearing is designed to carry a load of approximately 1,400 tons, including a hydraulic thrust of some 1,100 tons, due to the turbine and the weight of its shaft and runner. It is also of interest to note that when the unit is working, it will rotate at a speed of 94.7 r.p.m. or 1½ times a second.

Each generator is approximately equivalent in height to a three-story house. Each has 56 miles of copper wire and nearly 195,000 punched laminations in its construction. Even more startling is the fact that four of the machines

could supply all the power required by a city the size of Hamilton.

The design of the St. Lawrence powerhouse differs from the majority of the Commission's other hydraulic stations in that the plant is of the modified outdoor type. Instead of the conventional superstructure over the generating rooms, the units will be protected by removable covers. These covers split in the middle, and are operated electrically to slide apart on tracks, exposing the generator.

Thus exposed, the individual units are simply lifted out, and can be disassembled and removed by means of the 300-ton gantry crane, to the enclosed erection bay for major maintenance work.

While the installation of the generators testifies to the advanced stage of construction achieved to date on the mighty new powerhouse, work is continuing also on the placing of concrete and the installation of mechanical parts for the matching turbines supplied by the English Electric Company.

By the end of 1957, a total of 880,000 cubic yards of concrete - approximately 90 per cent of the total required - had been placed in the powerhouse. In addition, speedings for all the turbines were in place.

Now in an advanced stage of construction, the Robert H. Saunders-St. Lawrence G.S. represents Ontario Hydro's last major source of hydro-electric power. When completed, it will contain turbo-generator equipment of the most advanced and efficient design, representing a major addition to the Commission's resources.

\*\*\*\*

## MAPLE PRODUCTS, 1957

Farm value of maple products in 1957 amounted to \$10,342,000, up 4 per cent from the preceding year's \$9,936,000 and the 1950-54 average of \$9,942,000, the Dominion Bureau of Statistics reports in a special statement. Output of maple products (expressed as syrup) in 1957 rose to 3,134,000 gallons from the preceding year's 2,677,000 and the 1950-54 average of 2,626,000 gallons.

Production of maple syrup last year increased to 3,068,000 gallons from 2,618,000 in 1956. Average farm price dropped to \$3.27 per gallon from \$3.70 but the gross farm value rose to \$10,031,000 from \$9,676,000. Maple sugar output rose to 661,000 pounds from 586,000, average farm price to 47¢ per pound from 44¢, and gross farm value to \$311,000 from \$260,000.

Gross farm value of maple syrup produced in 1957 amounted to \$8,328,000 versus \$8,336,000 in the preceding year. Ontario was next with \$1,574,000 versus \$1,272,000, New Brunswick \$95,000 versus \$51,000, and Nova Scotia \$34,000 versus \$17,000. Production of maple sugar in Quebec had a farm value of \$236,000 versus \$230,000, New Brunswick \$58,000 versus \$21,000, Nova Scotia \$10,000 versus \$5,000, and Ontario \$7,000 versus \$4,000.

### AID WEST INDIES

Prime Minister, J.G. Diefenbaker, has announced that the Government proposes to recommend to Parliament that Canada give the West Indies a ship to carry passengers and cargo between the various islands of the new federation. The decision was taken following discussions between Canadian and West Indian representatives who have been reviewing the needs of The West Indies and the possibility of Canada extending assistance. This ship is the first major capital project in the Canadian aid programme for The West Indies, which was initiated some time ago when interim arrangements were made for provision of Canadian technical assistance for The West Indies. The Prime Minister proposed that further discussions on the Canada-West Indies aid programme take place during the Commonwealth Trade and Economic Conference which representatives of the West Indian Federation are being invited to attend.

The following message conveying the offer of the Canadian Government to the Government of The West Indies has been sent by the Prime Minister to Lord Hailes, the Governor-General of The West Indies, and the Advisory Council:

"To the Governor-General and Advisory Council, Port of Spain:

"Following discussions between representatives of The West Indies and of the Canadian Government, my colleagues and I have had an opportunity to consider the needs of The West Indies for assistance in carrying out the economic development plans of the federation and how Canada could help most effectively. A few weeks ago interim arrangements were made to provide The West Indies with the services of some Canadian experts. We now have had an opportunity to consider further the Canadian aid programme for The West Indies. We recognize that an inter-island shipping service, to move goods and people between the various islands, is one of the most acute needs of your new federation. This is a need which Canada is able and willing to meet and I am happy to be able to inform you that the Government has decided to recommend to Parliament that it authorize the Government to provide The West Indies with a ship to be used in your inter-island Service.

"Over the next few months there will be opportunities for consideration to be given to the design and other matters respecting this vessel. Further discussion regarding capital aid and technical assistance from Canada could best take place, I suggest, at the Commonwealth Trade and Economic Conference to be held in Montreal in September.

"With this message I send my warm personal greetings to you and the Advisory Council and I assure you that the emergence of a new Commonwealth nation in the Western Hemisphere has the warm sympathy and the support of the

people of Canada. We are looking forward to increasing and strengthening the traditional ties between the Canadian people and the people of the West Indies. John G. Diefenbaker".

\* \* \* \* \*

### \$22,000,000 HOUSING AND SCHOOL PROGRAMME

Mr. Howard C. Green, Minister responsible for the operations of the Federal housing agency, Central Mortgage and Housing Corporation, has announced that the Corporation will undertake a new \$22 million programme of housing and school construction for use by the Department of National Defence at various locations throughout Canada.

The programme, which includes 1,911 housing units for married personnel of the Navy, Army and Air Force, nine schools and 21 school extensions, and all related ground services, will require a peak labour force of more than 3,000 men. It is anticipated that tender calls will be completed by October but much of the work will be underway by that date.

Row, semi-detached and detached housing units are included in the programme with the largest project at Petawawa, Ontario, where 600 units will be constructed. The houses will provide two, three and four-bedroom accommodation. The new schools will range in size from four classrooms to a 19-room school with auditorium. School extensions range from one to 10 rooms.

The distribution of the projects by regional areas is as follows: Atlantic Region - 157 housing units, four schools, three school extensions; Quebec Region - 347 housing units, six school extensions; Ontario Region - 824 housing units, three schools, seven school extension; Prairie Region - 400 housing units, one school, one school extension; B.C. Region - 183 housing units, one school, three school extensions.

Localities at which work will be undertaken include: Dartmouth, Shearwater, Newport Corners, Shelburne and Greenwood, Nova Scotia; Camp Gagetown, New Brunswick; Val Cartier, Chicoutimi and Parent, Quebec; Ottawa, Petawawa, Barriefield, Clinton, Edgar, Foymount and Falconbridge, Ontario; Portage la Prairie, Manitoba; Calgary and Edmonton, Alberta; Esquimalt, Aldergrove, Matsqui and Comox, British Columbia.

Under its present DND programme, CMHC has 2,132 housing units and five schools under construction with 2,333 housing units, nine schools and 21 school extensions still to go to tender.

Under earlier programmes, CMHC administered contracts for the completion of 19,200 housing units and 73 schools for the Department of National Defence.

## RECORD LABOUR INCOME

Canadian labour income reached a record total of \$15,348,000,000 in 1957, an increase of 7.4 per cent over the preceding year's \$14,284,000,000, the Dominion Bureau of Statistics reports. December's total was \$1,288,000,000 versus \$1,316,000,000 in November and \$1,248,000,000 a year earlier.

The drop of \$28,000,000 from November to December can be explained partly by reference to seasonal factors. However, when allowance has been made for these the resulting seasonally adjusted estimate of \$1,282,000,000 still represents a fall of \$6 million from the similarly adjusted estimate for the preceding month. Thus the downward trend evident in the previous two or three months continued into December.

Increases in labour income were posted for all five major groups in the full year but the reverse was true in the November-December comparison. Labour income in construction in December was off by about 14 per cent from November, largely, but not entirely, owing to seasonal influences. Primary industries fell by 4 per cent or 5 per cent, partly a result of the continued, though less rapid, decline in forestry (apart from seasonal movement). Other industrial groups displayed more moderate rates of decrease.

Labour income by major groups in the full year: agriculture, forestry, fishing, trapping, mining, \$1,081,000,000 (\$1,049,000,000); manufacturing, \$4,764,000,000 (\$4,545,000,000); construction, \$1,156,000,000 (\$1,114,000,000); utilities, transportation, communication, storage and trade, \$4,022,000,000 (\$3,685,000,000); finance, services, including government, \$3,792,000,000 (\$3,394,000,000); and supplementary labour income, \$533,000,000 (\$497,000,000).

December totals: agriculture, forestry, fishing, trapping, mining, \$85,000,000 (\$89,000,000 in November); manufacturing, \$396,000,000 (\$397,000,000); construction, \$90,000,000 (\$104,000,000); utilities, transportation, communication, storage, trade, \$344,000,000 (\$348,000,000); finance, services, including government, \$328,000,000 (\$332,000,000); supplementary labour income, \$45,000,000 (\$46,000,000).

Estimates of employment in major non-agricultural industries are consistent with changes in income. By late November the industrial composite index was lower than at the same date a year earlier in nine of the ten provinces (Saskatchewan was the exception). The seasonally adjusted employment index for Canada continued to fall from late October to late November. The average of industrial weekly earnings was higher by 4.7 per cent in late November than at the same date in 1956. On the other hand, the average number of hours worked in manufacturing fell from 41.5 to 40.6, a drop of 2.2 per cent.

## UNION MEMBERSHIP GROWS

A 2.5 per cent increase in Canadian trade union membership in the year ending January 1957, to a total of 1,386,185, is reported in the latest edition of *Labour Organization in Canada*, recently published. It is the 46th annual report issued by the Department.

The 1957 total, compiled just seven months after three quarters of Canadian union members realigned themselves to form the Canadian Labour Congress, was 32.8 per cent of non-agricultural paid workers. This proportion, despite the increase in total membership, was 0.5 per cent lower than a year earlier.

The 1957 survey showed that:

(a) The Canadian Labour Congress increased its membership by 40,000.

(b) Affiliation of the Brotherhood of Locomotive Firemen and Enginemen with the CLC reduced the size of the independent railway brotherhood group by 10,000.

(c) There were, at August 1957, six fewer provincial federations and 25 fewer local labour councils than a year before.

(d) The number of unions active in Canada decreased by seven.

(e) International unions gained 43,000 new members.

(f) National union membership changed little from last year.

(g) Ontario recorded the largest increase in union membership.

(h) Largest labour market gain was in Hamilton, where some 9,000 members were added.

(i) By industrial groups the largest change was in manufacturing, where the percentage of workers organized rose by 2 per cent.

\* \* \* \* \*

## ATOMIC ENERGY AGREEMENT

An agreement between the Governments of Canada and Switzerland for co-operation in the peaceful uses of atomic energy has been signed in Ottawa. The Secretary of State for External Affairs, Mr. Sydney Smith, signed for Canada and the Swiss Ambassador, Dr. Victor Nef, for Switzerland. The agreement is to be ratified and will come into force upon the exchange of instruments of ratification.

This agreement provides for co-operation in a variety of forms including the exchange of information, the supply of equipment and materials, and access to and use of facilities. In particular, the agreement will permit arrangements to be made for the supply of uranium from Canada to Switzerland.

This agreement is similar to that concluded with the Federal Republic of Germany last December. Such agreements for co-operation on a bilateral basis are consistent with membership in and support of the International Atomic Energy Agency, to which both Canada and Switzerland belong.

### SKILLED GARDENERS SCHOOL

One of Canada's most unique schools is located just outside Niagara Falls, along the scenic Niagara Parkway. Since 1936 when it was conceived, the Niagara Parks School of Gardening, has graduated over 100 students who today hold a variety of important jobs. The school is administered by Ontario's Niagara Parks Commission offering a three-year course in practical gardening and general horticulture. The school provides its students with a well-rounded education which is gained fifty per cent of the time in the classroom and the other half of the time on the 75-acre school grounds, and throughout the Niagara Parks which stretch 35 miles along the Niagara River from Fort Erie to Niagara-on-the-Lake.

Students not only receive an education which fits them well for a wide range of jobs, but they are also paid a nominal weekly wage. Freshmen receive \$12.80 per week, sophomores get \$13.80 a week and senior students receive \$14.80 a week. The original aim in establishing the school was to provide skilled gardeners to carry out the exacting work of maintaining the more than 3,000 acres administered by the Niagara Parks Commission. However, there is not the same shortage of skilled gardeners for the Parks System today, and although some of the School's graduates are retained by the Commission, the majority have taken other jobs and are located across Canada and also in the United States. Several graduates are employed as parks superintendents in many of the larger cities. Others are serving as arborists in some of the larger centres. One graduate is a horticulturalist at one of the larger American universities and another is grounds superintendent at Queen's University in Kingston. Some are employed by leading florists' shops across the country. Another graduate is a flower propagator at the famous Royal Botanical Gardens in Hamilton. Still another graduate is superintendent of horticulture for the Niagara Parks Commission and today is responsible for co-ordinating the activities of the School from which he graduated.

The academic courses taught at the School of Gardening include a comprehensive study of such subjects as botany, floriculture, fruit and vegetable gardening, landscape art, arboriculture (the study of native and exotic trees and shrubs), plant pathology, soils and manures, and horticulture. Throughout the history of the school, the curriculum has been constantly revised and elaborated on to fill the increasing needs of its graduates. An innovation at the school this year has been a course in tree work and care.

Besides the expert training they receive in the practical and academic aspects of gardening and horticulture, students of the School of Gardening are required to take mathematics and English, including public speaking.

As residents on the beautiful 75-acre school site, students take great pride in maintaining the acres of flower beds, which as one of the highlights of the entire Niagara Parks System, annually attract thousands of people. A particular pride of the students is an elaborate arboretum in which they attempt to grow seeds, shrubs and trees obtained from all over the world. Each is labelled and proves of great interest to the public. Largely self-sufficient, the students grow their own vegetables and fruit and raise chickens and ducks.

### JET-AGE "AEROQUAY" SYSTEM

A subway system of passenger access from the terminal building to "island" gate positions, each capable of handling traffic to and from four aircraft at the same time, is being incorporated into construction of the new Department of Transport Air Terminal at Montreal's Dorval Airport, it is announced by Mr. George Hees, Minister of Transport.

The use of the "island" or aeroquay system was decided upon after careful further study of the needs of jet-age aircraft and consultation with T.C.A. It will enable jet powered transports to lead and disembark passengers more speedily than at conventional airport establishments, where movement of such planes is restricted when close to buildings because of the blast from the motors.

#### WILL SPEED SERVICE

There will be four aeroquays at the new Dorval terminal, set out at a distance from the main building. Passengers will reach them via underground passages and then will have to walk only a few steps to board their planes. The loading and unloading process will be much faster than at existing airports and the "turn-around" time of each aircraft reduced accordingly.

The new system is endorsed by airlines, whose aircraft are becoming ever larger and faster. It will provide benefits for the public using the terminal building, since the noise of aircraft motors will be at a distance from the waiting rooms. In addition, the aeroquay plan will permit level and enclosed access for the passenger to the aircraft in the not too distant future when the airlines use covered loading bridges, connected to the building, to eliminate the steps at the aircraft.

#### EASIER MAINTENANCE

The new system will mean greatly simplified "housekeeping" problems for the Department of Transport in matters such as snow removal and installation of underground services for gasoline, jet fuel, de-mineralized water for jet engines, electrical power and other services. It will also mean that variations in the wing-

span of aircraft will not have any bearing on operations or require modification of buildings, as would be necessary with older type schemes of "fingers" or corridors extending from terminal buildings.

The manner in which the Dorval Air Terminal was planned permits the subway scheme to be adapted to it readily and the use of aeroquays will not cause any delay in the building programme.

### NEW SHELLFISH BEDS

Clues to the existence of several promising new shellfish grounds on Canada's east coast have been literally dredged up from the Atlantic by scientists of the Fisheries Research Board of Canada.

Exploratory fishing on the ocean floor by the Board's researchers for the Fisheries Department's Industrial Development Service has resulted in the discovery of stocks of scallops and shrimps in inshore and offshore waters around Newfoundland.

In a report on the year's activities at the Board's Biological Station in St. John's, Newfoundland, Director Dr. W. Templeman said that several new scallop beds of possible commercial value had been located in St. John Bay, Ingornachois Bay, Bonne Bay and Bay of Islands along Newfoundland's west coast. Similar finds were made in Fortune Bay, St. Mary's Bay and Placentia Bay on the south coast, but results were less favourable in the southwest area.

Good shrimp catches were made within a large area in the Gulf of St. Lawrence extending about 100 miles south from Port aux Choix on Newfoundland's west coast. Fair size stocks of shrimps were found on the southwest coast between Ramea Island and the mainland and from Burgeo to Rencontre West, and small areas in Fortune Bay and Bay D'Espoir also yielded good shrimp catches.

Deepwater exploratory fishing was referred to by Director Dr. J.L. Hart in outlining the work at the Board's Biological Station in

\* \* \* \* \*  
The new system will mean greatly simplified "housekeeping" problems for the Department of Transportation matters such as snow removal and installation of underground services for gas, water, fuel, demineralized water for jet engines, electrical power and other services. It will also mean that variations in the wings

St. Andrews, New Brunswick. Promising new scallop beds were found on the southern part of St. Pierre Bank, following up a similar discovery on the northern part of this bank in 1954.

The new beds were described as small but promising, and are in from 24 to 26 fathoms of water. The larger of the two is about 12 square miles in extent, the smaller about four square miles. Commercially profitable catches of good-sized scallops with large, firm meats have been made.

### CIVIL AVIATION MEDICINE

Twenty-five experts in the field of civil aviation medicine met in Toronto last week to discuss problems arising from the rapid expansion of air travel and the increasing use of turbo-prop and jet-engined aircraft. Drawn from every section of Canada and meeting at the RCAF Institute of Aviation Medicine, the group consisted of medical examiners from the Department of Transport and six Civil Aviation regional medical officers. The course was organized and conducted by Dr. W.A. Prowse, Chief of the Civil Aviation Medicine Division of the Department of National Health and Welfare and associated with the Department of Transport in this work.

First session of its sort since 1956, its purpose was to assist the medical men who examine and evaluate pilots and other aviation personnel licensed by the DOT. Topics discussed included medical selection duties, crash injury, investigations crash pathology, trans-continental air travel and the transportation of the ill or injured. Lecturers were drawn from Ohio State University, Civil Aeronautical Administration of the United States, Saskatchewan Government Air Ambulance Service, TCA, Canadian Air Lines Pilots' Association, Defence Research Medical Laboratories, DOT and the RCAF Institute of Aviation Medicine. Papers were also presented for discussion by the universities of Toronto and Manitoba.

\* \* \* \* \*  
The school from which he graduated... The academic courses taught at the school... of Gardening include a comprehensive study of such subjects as botany, horticulture, fruit and vegetable gardening, landscape art, arboriculture (the study of native and exotic trees and shrubs), plant pathology, soils and manures, and horticulture throughout the history of the school, the curriculum has been constantly revised and elaborated on to fill the increasing needs of its graduates. A major innovation at the school this year has been a course in tree work and care. Besides the expert training they receive in the practical and academic aspects of garden-keeping and horticulture, students of the school are required to take mathematics and English, including public speaking.